

REMARKS

Reconsideration of and timely allowance of the pending claims, in view of the following remarks, are respectfully requested.

Claims 1-12 are pending active examination. Claims 13-31 are withdrawn from consideration as being drawn to non-elected inventions. Claims 1, 5, and 8 are amended to provide a clearer presentation of the claimed subject matter. Claims 3, 4, and 10 are cancelled without prejudice or disclaimer. No new claims have been added and no new matter has been added.

In the Office Action, the Examiner has rejected claim 3 for indefiniteness under 35 U.S.C. §112 ¶2. The Examiner has also rejected claims 1, 2, 4-8, and 11 under 35 U.S.C. §103(a) over U.S. Patent Application No. 2002/0005252, of Masuda et al. (hereinafter referred to as Masuda), in view of U.S. Patent No. 5,522,932, of Wong et al. (hereinafter referred to as Wong), claims 3, 9, and 10 under 35 U.S.C. §103(a) over Masuda in view of Wong, and further in view of U.S. Patent No. 5,647,953, of Williams et al. (hereinafter referred to as Williams), and claim 12 under 35 U.S.C. §103(a) over Masuda in view of Wong, and further in view of U.S. Patent No. 5,605,637, of Shan et al. (hereinafter referred to as Shan). The applicants respectfully disagree with these rejections and, therefore, respectfully traverse them all, for the reasons presented below.

Turning now to the merits, regarding rejection of claim 3 for indefiniteness under 35 U.S.C. §112 ¶2, the applicants have cancelled claim 3 without prejudice or disclaimer. The applicants, therefore, respectfully request that the Examiner withdraw the rejection of claim 3 under 35 U.S.C. §112 ¶2.

To provide a clearer presentation of the claimed subject matter, the applicants have amended claim 1 to recite the limitation “wherein the film of material has been coated using a second plasma in a second plasma processing chamber different from said first plasma processing chamber”, which was originally presented in claim 4, and cancelled claim 4 without prejudice or disclaimer. The applicants have also added to claim 1 a new limitation “wherein the chemistries of the first and second plasmas are substantially the same”, and have further

amended claims 1 and 5 to distinguish between the “first” and “second” plasma processing chambers and the “first” and “second” plasmas to which the parts are exposed therein respectively. The applicants have further amended claim 8 to clarify the claimed subject matter by specifically requiring that the material of the film be determined by at least one of a customer specification, a supplier specification, a process recipe, a chamber parameter, a pre-seasoning time, and type of process used to manufacture the substrate. Lastly, the applicants have cancelled claim 10 without prejudice or disclaimer.

The applicants respectfully submit that support for the above mentioned claim amendments can generally be found in at least paragraphs 5, 13, and 14 of the as-filed written description. Specifically, paragraph 5 discusses the need to perform pre-seasoning of plasma chamber parts to prevent contamination of the process chemistry and to achieve repeatable plasma processing results in production. Paragraphs 13 and 14 describe the process wherein the chamber parts are exposed, in a different chamber, to a plasma of substantially the same chemistry as the one to be used in production, e.g. by using dummy substrates similar to the ones used in production, thereby pre-seasoning the chamber parts with a film of substantially the same composition as the one achieved when pre-seasoning in-situ, but without the burdensome plasma processing tool downtime resulting from the need to process non-production substrates only for the purpose of generating the film on the newly-replaced parts.

The applicants further respectfully submit that the above mentioned claim amendments should not be taken to implicitly or expressly indicate that the applicants concede that the claims, as originally drafted, are not patentably distinguishable over the prior art. To the contrary, the applicants maintain that the claims, as originally drafted, are patentable over the references. In addition, the applicants respectfully reserve the right to present the claims, as originally drafted, in a continuation application, if so desired.

Regarding the rejection of claim 1 under 35 U.S.C. §103(a) over Masuda in view of Wong, the applicants respectfully submit that the Masuda and Wong references do not teach all the steps and limitations of claim 1, as currently amended. Specifically, neither the Masuda, nor the Wong reference teach, alone or in combination, the disposing of a chamber part in a first

and second plasma processing chamber, which are different, and the exposing of the chamber part to a first and second plasma, that have substantially the same chemistry. The references are entirely silent about these multiple steps and limitations, and so are all the other references asserted by the Examiner.

The applicants further respectfully submit that there is no teaching, motivation, nor suggestion to combine the Masuda and Wong references because the references present incompatible solutions to two different problems. Wong teaches the coating of chamber parts using rhodium coatings, among others, to prevent corrosion of chamber parts, which negates the Masuda reference's intended purpose of providing a pre-seasoned coating on the chamber parts to prevent process contamination. Those of ordinary skill in the art of semiconductor processing would readily recognize that rhodium coatings, and other coatings for corrosion protection provided on most as-newly-installed chamber parts, are incompatible or at best neutral to the plasma chemistry used in substrate production, hence the need to perform an in-situ pre-season. This mutual incompatibility presents a strong disincentive to those skilled in the art of semiconductor processing to combine the teachings of the Masuda and Wong references, as there is no reasonable expectation of success when one attempts to use Wong's externally-applied corrosion resistant coatings as a substitute for pre-seasoning of chamber parts as taught by Masuda, wherein success is defined by a low level of contamination of the plasma process. Indeed, the very fact that in-situ pre-seasoning is done on otherwise already corrosion-protected parts is a per-se indication of the low expectation of success.

The applicants, therefore, respectfully submit that claim 1, as amended, patentably defines over the combined teachings of the Masuda and Wong references, and respectfully request that the Examiner withdraw the rejection of claim 1 over the Masuda and Wong references.

Regarding the rejection of claim 4 under 35 U.S.C. §103(a) over Masuda in view of Wong, this claim's limitations have been incorporated into claim 1, and the claim has been cancelled without prejudice or disclaimer. Therefore, the applicants respectfully request that the Examiner withdraw the rejection of claim 4 over the Masuda and Wong references.

Regarding the rejections of claims 2, 5, 6, 7, 8, and 11 under 35 U.S.C. §103(a) over Masuda in view of Wong, the applicants respectfully submit that these claims patentably define over the teachings of Masuda and Wong at least by virtue of being dependent on claim 1 which patentably defines over the Masuda and Wong references, as well as for their additional recitations. Therefore, the applicants respectfully request that the Examiner withdraw the rejections of claims 2, 5, 6, 7, 8, and 11 over the Masuda and Wong references.

Regarding the rejections of claims 3 and 10 under 35 U.S.C. §103(a) over Masuda in view of Wong, and further in view of Williams, these claims have been cancelled without prejudice or disclaimer. Therefore, the applicants respectfully request that the Examiner withdraw the rejections of claims 3 and 10 over the Masuda, Wong, and Williams references.

Regarding the rejection of claim 9 under 35 U.S.C. §103(a) over Masuda in view of Wong, and further in view of Williams, the applicants respectfully submit that this claim patentably defines over the teachings of Masuda, Wong, and Williams, at least by virtue of being dependent on claim 1 which patentably defines over the Masuda and Wong references, as well as for its additional recitations. Furthermore, the Williams reference does not cure any of the already stated deficiencies of the combined teachings of the Masuda and Wong references, as related to either claim 9, or claim 1 on which it depends. Therefore, the applicants respectfully request that the Examiner withdraw the rejection of claim 9 over the Masuda, Wong, and Williams references.

Regarding the rejection of claim 12 under 35 U.S.C. §103(a) over Masuda in view of Wong, and further in view of Shan, the Examiner concedes that Masuda and Wong do not teach the step of obtaining a pumping deposition shield, and asserts that Shan provides this missing step. However, the applicants respectfully submit that persons of ordinary skill in the art of semiconductor plasma processing would immediately recognize that the plasma screen 30 with slits 40 of Shan (FIG 1), is the exact same part as the pumping baffle plate 105 of the present application (FIGS 1-4), the obtaining and pre-seasoning of which are the subject matter of non-elected and withdrawn claims 16-20. In the present application, the pumping deposition shield is denoted with the reference numeral 110 (FIGS 1-4) and is clearly a different part, with a

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different function (see paragraphs 16 and 18 of the as-filed written description.) Therefore, the Shan reference does not teach the necessary step of obtaining a pumping deposition shield, and neither do any of the other cited references. For at least this reason, the fact that the claim depends from amended claim 1 which patentably defines over the Masuda and Wong references, and because of the claims of the present application positively differentiating between the pumping deposition shield and the pumping baffle plate, the applicants respectfully submit that claim 12 patentably defines over the Masuda, Wong, and Shan references. Therefore, the applicants respectfully request that the Examiner withdraw the rejection of claim 12 over Masuda, Wong, and Shan.

Consequently, in view of the present amendments and above mentioned remarks, no further issues are believed to be outstanding in the present application and the present application is believed to be in condition for formal allowance. An early and favorable action is therefore respectfully requested.

Please charge our Deposit Account No. 50-3451 for any additional fee(s) that may be due in this matter, and please credit the same deposit account for any overpayment.

Respectfully submitted,

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